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Background. Carrying out whole tasks is often too difficult for novice learners attempting to acquire complex skills. The common solution is to split up the tasks into a number of smaller steps. The number of steps must be optimised for efficient and effective learning.
Aim. The aim of the study is to investigate the relation between the number of steps provided to learners and the quality of their learning of complex skills. It is hypothesized that students receiving an optimised number of steps will learn better than those receiving either the whole task in only *one* step or those receiving a large number of steps.
Sample. Thirty-five sophomore law students studying at Dutch universities, mean age = 22.8 years (*SD* = 3.5), with 63 per cent females.
Method. Participants were randomly assigned to one of three computer-delivered versions of a multimedia program on how to prepare and carry out a law plea. The versions differed only in the number of learning steps provided. Videotaped plea-performance results were determined, various related learning measures were acquired and all computer-actions were logged and analysed.
Results. Participants exposed to an intermediate (i.e., optimised) number of steps outperformed all others on the compulsory learning task. No differences in performance on a transfer task were found. A high number of steps proved to be less efficient for carrying out the learning task.
Conclusions. An intermediate number of steps is the most effective, proving that the number of steps can be optimised for improving learning.

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